

A2

--The present invention provides isolated nucleic acid molecules comprising a polynucleotide encoding a hPSP polypeptide having the amino acid sequence shown in Figure 1 (SEQ ID NO:2), which was determined by sequencing a cloned cDNA. The nucleotide sequence shown in Figure 1 (SEQ ID NO:1) was obtained by sequencing the HSGSA61 clone, which was deposited on November 26, 1996 at the American Type Culture Collection, 10801 University Boulevard, Manassas, Virginia 20110-2209, U.S.A., and given accession number ATCC 97811. The deposited clone is contained in the pBluescript SK(-) plasmid (Stratagene, La Jolla, CA).--

On Page 16, please delete the entire paragraph beginning on line 3, and replace with the following amended paragraph:

A3

--In another aspect, the invention provides an isolated nucleic acid molecule comprising a polynucleotide which hybridizes under stringent hybridization conditions to a portion of the polynucleotide in a nucleic acid molecule of the invention described above, for instance, the cDNA clone contained in ATCC Deposit No. 97811. By "stringent hybridization conditions" is intended overnight incubation at 42° C in a solution comprising: 50% formamide, 5x SSC (750 mM NaCl, 75 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA, followed by washing the filters in 0.1x SSC at about 65° C.--

On Page 36, please replace the first full paragraph, beginning on line 1, with the following rewritten paragraph:

A4

--In the most preferred method, the antibodies of the present invention are monoclonal antibodies (or hPSP protein binding fragments thereof). Such monoclonal antibodies can be prepared using hybridoma technology (Köhler *et al.*, *Nature* 256:495 (1975); Köhler *et al.*, *Eur. J. Immunol.* 6:511 (1976); Köhler *et al.*, *Eur. J. Immunol.* 6:292 (1976); Hammerling *et al.*, in: *Monoclonal Antibodies and T-Cell Hybridomas*, Elsevier, N.Y., (1981) pp. 563-681). In general, such procedures involve immunizing an animal (preferably a mouse) with a hPSP

protein antigen or, more preferably, with a hPSP protein-expressing cell. Suitable cells can be recognized by their capacity to bind anti-hPSP protein antibody. Such cells may be cultured in any suitable tissue culture medium; however, it is preferable to culture cells in Earle's modified Eagle's medium supplemented with 10% fetal bovine serum (inactivated at about 56°C), and supplemented with about 10 g/l of nonessential amino acids, about 1,000 U/ml of penicillin, and about 100 µg/ml of streptomycin. The splenocytes of such mice are extracted and fused with a suitable myeloma cell line. Any suitable myeloma cell line may be employed in accordance with the present invention; however, it is preferable to employ the parent myeloma cell line (SP2O), available from the American Type Culture Collection, Manassas, Virginia. After fusion, the resulting hybridoma cells are selectively maintained in HAT medium, and then cloned by limiting dilution as described by Wands et al. (Gastroenterology 80:225-232 (1981)). The hybridoma cells obtained through such a selection are then assayed to identify clones which secrete antibodies capable of binding the hPSP protein antigen.--

In the Drawings

Please replace the Informal Drawings of Figures 1-3 with Formal Drawings of Figures 1-3 submitted herewith.

In the Claims

Please add the following new claims:

19. (New) An isolated polynucleotide comprising a nucleic acid sequence selected fragment from the group consisting of:

- (a) a nucleic acid sequence encoding an amino acid sequence at least 95% identical, using the Bestfit algorithm and default parameters, to a polypeptide of amino acids +1 to +231 of SEQ ID NO:2;
- (b) a nucleic acid sequence encoding a polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97811; and
- (c) a nucleic acid sequence encoding a polypeptide of at least 30 contiguous amino acids of SEQ ID NO:2.